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ABSTRACT

Described in this report are the design and implementation of manipulative tasks developed to decrease the number of aggressive acts among kindergarten children during play time. A total of 17 kindergarten boys and girls randomly selected from three kindergarten classes were observed once a week over a period of 6 weeks by two observers recording aggressive acts as they were committed by the children. Subjects were then assigned to daily treatment sessions of 5 to 15 minutes for a period of 2 weeks. During treatment sessions children were asked to complete several tasks, each requiring two children to work together toward task completion. Data obtained from posttreatment observations and from the subjects' teachers indicated a decrease in the number of children being aggressive, a decrease in the maximum number of aggressive acts per child, and an increase in the number of children taking no aggressive actions. (MP)

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THE DESIGN AND IMPLEMENTATION OF FORTY MANIPULATIVE TASKS TO DEVELOP COOPERATION IN A KINDERGARTEN CLASS AT PALMER SCHOOL

by

Dolores J. Schmitz

PS 013383

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CHAPTER ONE

The Purpose of the Project

The purpose of this project is to decrease the number of aggressive acts between children during play time. Both passive and active aggressive acts will be monitored in the pre and post treatment observations during play periods of 45 minutes. Conversely, the researcher hopes cooperative acts will increase as cooperation is taught through the tasks.

The tasks will be presented by the researcher to the whole class; but, each one requires two students to cooperate for completion. The tasks will be designed by the researcher using various early childhood manuals, texts, magazines and college texts for group dynamics and psychology.

The tasks will be in a handbook form which a colleague, a supervisor and a student teacher will critique.

The Rationale of the Project

This project is to be completed in a k-5 class at Henry L. Palmer School in Milwaukee, Wisconsin. The school is in an extremely low socio-economic neighborhood; and is an entry point for recent arrivals from "down south." One parent of the group to be monitored has a college degree; few have completed high school, some have an eighth grade education while many have less than a junior high school education.

Palmer School ranked at the bottom of the Milwaukee city schools in academic achievement for several years. This year it is fourth from the bottom. This increase in academic achievement was brought about by the RISE and MU-IGE programs.

The rule of thumb for the neighborhood has been "Hit if you are hit," no matter if it was an accident. Some say "Hit if someone calls you a name." There is a lot of fist-body contact due to these standards. Telling the children to talk it out and helping them do the same has been consistently less than successful. Teaching cooperation by hands on, manipulative, tasks appears to

be positive as evidenced by the researcher's use of the 5-square project at Palmer with another k-5 class in April 1981. WECA had a regional workshop on teaching cooperation to young children in fall of 1981. A large eastern university did research on cooperation and young children in 1981; findings showed lack of cooperation skills.

Palmer School does a month long, school wide respect project in October; further evidence that we need cooperation - trust - respect.

If the tasks teach cooperative behavior; the classroom will be more fun to be in, more time can be devoted to teaching (less to discipline), achievement scores can and probably will go up. It is also possible that the students' life out of school, in their homes and neighborhood, will be happier and less aggressive.

The 22 children in the researcher's class were randomly selected. They were assigned from the 66 k-5 children enrolled at Palmer. The only special selection was to initially divide the boys and girls into equal percentages between the three sections.

There will be two observers for the pre and post treatment observations; each has had previous experience working with five year olds. Number one is a student teacher at present, with a background of three years as a teacher in a private nursery school. Number two has been volunteering in the researcher's classroom for 10 years on a one or two day a week basis. Both young women will observe simultaneously and unobtrusively, during the 45 minute free play time, recording aggressive acts on a form designed by the researcher.

The research design chosen was observation (six times), followed by four weeks of treatment (with a daily log), followed by observation (six more times). This design was chosen when no control group could be found.

Procedures to be Used in the Study

A pre-treatment observation using a form constructed by this researcher will be done (see appendix). Two observers will hash mark aggressive acts as they are committed by individual children. The observations will be for 45 minutes on Wednesdays for six weeks, during November, December 1981, and January 1982. The observer

is not to interact with the children except on a cursory basis; i.e., "Go and ask Mrs. Schmitz," the teacher and non-observer. Aggressive acts will be 'credited' to the child committing them. Wednesdays were chosen because they are the least restrictive day of the week for the children.

The month of February will be used for treatment. Weeks one and two will have daily treatment sessions of five to fifteen minutes. Weeks three and four will have alternate day treatment sessions of five to twenty minutes.

Post-treatment observation will be done as the pre-treatment was: two observers, 45 minutes on Wednesdays for six weeks, using the observation form.

Objectives

Developmental Objective 1

By November 9, 1981, the researcher will have completed the observation form to be used by the observers.

Implementation Activities

To prepare this form the researcher will confer with colleagues at Palmer School to ascertain:

a. Which specific active aggressive behaviors we observe happening most often.

b. Which passive aggressive behaviors we observe happening most often.

c. Which aggressive behaviors we would like to see diminished because they interfer with learning.

d. Decide which behaviors to use on the form.

Developmental Objective 2

During the three month period from November 11, 1981 to January 31, 1981, six observations will be made.

Implementation Activities

For the observations to be of value the following decisions must be made:

a. The length of time for each observation.

b. The frequency of observations.

c. How many observers should be used.

d. Selecting the observers.

e. Briefing the observers on the use of the observation form.

Developmental Objective 3

By February 1, 1982, the researcher will have completed the collection and creation of tasks and materials to be used for the 40 cooperation tasks.

Implementation Activities

To prepare this set of tasks, the researcher will gather materials--ideas from several sources:

a. Decide which supplementary and enrichment activities to use from the reading (Scott-Foresman) and math (Heath) teachers manuals.
b. Confer with a Guidance Director, a Science Specialist, and co-workers for ideas they have successfully used which require cooperation for completion.
c. Peruse early childhood magazines and idea books.
d. Decide which 40 tasks to use and sequence them from easy to difficult.
e. Prepare the materials and--or assemble them for use in presenting the tasks.

Developmental Objective 4

During the month of February the researcher will teach the cooperation tasks daily from February 1, 1982, to February 12, 1982, and on alternate days from February

15, 1982 to February 26, 1982, in time segments of five to twenty minutes as necessary for completion of the tasks.

Implementation Activities

In order for the tasks to be taught, the following implementation ideas will be followed:

a. Partners for each task will be randomly selected; as by matching cards or researcher selection to assure many different partners during the treatment tasks.

b. The researcher will explain--model the task.

c. Each pair of children will complete their task together. The task will be identical for all pairs of children. The pair may repeat the task, if desired.

d. Following completion of the tasks each pair of children will be allowed to play together, they will select the play area they will use cooperatively.

Evaluation Objective 1

By the end of the treatment, the researcher's k-5 class at Palmer School will be less aggressive as evidenced by more hash marks on the observation form before than after the cooperation tasks were taught.

Implementation Activities

a. Observations to be made by the same two observers.

b. Using the observation form (see appendix), the observers will use hash marks to record both active and passive aggressive acts during the 45 minute play time on Wednesdays from March 1, 1982 to April 5, 1982.

Evaluation Objective 2

A daily observational log describing activities, their effect on students and students' responses to the activities, will be kept by the researcher during the treatment, from February 1, 1982 to February 29, 1982.

Implementation Activities

For the log to be of value to the researcher, several areas will be included:

a. A description of the activities.

b. The effect, if any, of the activity on the students, both as a class and as individuals.

c. The students response to the activities.

d. A case study of two to three children is optional if some appear to stand out in performance, either good or bad.

Evaluation Objective 3

Early childhood persons will evaluate the Cooperative Tasks Handbook by March 31, 1982.

Implementation Activities

a. Construct the questionnaire to be used by the evaluators by February 29, 1982.
b. Ask a fellow k-5, central city teacher to judge the value of the handbook.
c. Ask my supervisor and--or my principal to judge the value of the handbook.
d. Ask my student teacher to judge the value of the handbook.

Definition of Major Terms

A. Active aggressive: violations of another child's personal space through movement; i.e., hitting, kicking, snatching toys.
B. Handbook: a compilation of the tasks with sketches and directions.
C. k-5: Milwaukee's way of recording the regular five year old Kindergarten class as opposed to an exceptional education or title one class. Each

k-5 class has from 20-28 children who were five years old before September 1 of the academic year.

D. MU-IGE: Multi Unit-Individually Guided Education. Children work in groups at their accepted achievement level. Teachers work in groups (units) of three or four with a unit leader to do the planning. Children move between rooms in their unit to achieve fewer in a group and thus more instructional time. Children also receive instructional time each week from specialists in art, library, music and physical education.

E. Passive Aggressive: violations of another child's person without invading their personal space; i.e., turning their back to avoid sharing, facial grimaces, talking unkindly to another child about a classmate.

F. RISE: Rising to Individual Scholastic Excellence. A design to improve individual pupil's achievement implemented by the Milwaukee Public Schools in the very lowest achieving schools as evidenced by the city wide testing program. Main thrusts are:

1) higher expectations for all students

2) more time on task

3) direct instruction

G. Tasks: Games, puzzles, matching items which have rules that make it necessary for two to work together for them to be completed. Simple ideas that take two to twenty minutes from start to finish.

H. WECA: Wisconsin Early Childhood Association. This is a banding together of several smaller organizations across the state whose focus is early childhood. The purpose is for a greater voice in legislative issues as well as being able to provide more comprehensive conferences for people who work with young children, including parents.

I. Whole Class: every one in the class will do the task at the same time; but, not together--they will work in groups of two or three.

CHAPTER TWO

Introduction

The researcher believes that peer group interaction has become increasingly more aggressive between kindergarten children over the last 25 years. She has seen cooperation skill development during the last 15 years diminish from a minimal level to an almost non-existent level. We know that very young children play laterally. When their development is ready for dual or group play they react aggressively rather than cooperatively. This created a need to teach cooperation skills. Schmuck and Schmuck (1979) made repeated references to the need to teach cooperation skills:

> ... people have brought to the forefront the need for and the importance of learning to work effectively in groups. Contemporary life places a premium on citizens' abilities to relate to others. (p.7)

Ramsey and Rayless (1980) emphasized that at every age level, cooperation skills are an indispensible life skill. Cooperation skills need to be taught in schools

beginning with the very young; i. e., kindergarten children.

Endless articles have been written on the subject of cooperation, the need for it, the lack of it and how to get it. The researcher will share some of these, followed by a few examples of presentation projects and research findings. She has found no conclusive research on the effectiveness of teaching cooperation skills to kindergarten children, but feels that such a project is still a worthwhile pursuit.

Causes of Aggressive, Non-Cooperative Behavior

The causes for the more aggressive behavior of the kindergarten children are many and varied. A previously agrarian society is now an urban society. Parents raised in the agrarian society often do not possess the parenting skills to prepare their children to participate in a cooperative urban society. Schmuck and Schmuck (1979) referred to the fact that large concentrations of people leads to a complexity of social conditions which agrarians have not dealt with previously.

The passive, non-interactive requirement for being a television viewer prevents the development of cooperation skills. Television is often blamed for the exposure to violence which it inflicts on children; they do learn by example. In 1971 Barnes (cited in Lougee, 1979) found that associative and cooperative behaviors are shown by children at a later age than was discovered by Partens in 1932. Barnes attributed this retardation of social skills to our culture which mitigates the need for young children to interact socially with their peers; specifically he was referring to television. Now, in 1982, this researcher is seeing even further retardation of social skills by those children who state that they watch many hours of television.

Parents who are too young to perform adequate parenting, who are in need of parenting themselves, are another cause of aggressive behavior. Tolles (1982) told of the children who suffer from inadequate care, nurturance and guidance during crucial developmental years; parents who have and use the child as a way to handle self doubts after leaving school at 12-16 years of age.

The researcher believes that behavior is learned. Holt (1971) also believes that aggressive behaviors can

be conditioned as well as cooperative behaviors. Either type of behavior is acquired, conditioned in the process of a child's interacting with adults and peers. The immediate response to the child's action is what determines whether or not the child's present behavior will be strengthened, minimized or forgotten.

Another cause of aggressive behaviors can be when both parents work. Older siblings may be left in charge who have not developed the skills to be capable "sitters." Many of these parents are too tired or have too much work to do when they arrive at home; this may prevent them from positive interaction with their children. The children may then withdraw and watch television which according to Barnes retards social development.

Reasons for Teaching Cooperative Behaviors

New children in a class do not attend to their studies attentively until they have established friendship with one or more classmates. Friendship is built on the cooperation of two persons. This supports the need for teaching cooperation tasks early in the school year. It is a means of helping students gain the need-

ed friends in their new class. McKinney (1974) stated that "adequate development of cooperative skills is the necessary antecedent condition to effective cognitive development and academic skill." (p.4)

Philosophically, Combs (1962) and Kelly (1962) felt that cooperation is beneficial. Kelly said that the fully functioning person learns to see others not as threats, but as assets, and that the life good to live is a cooperative one. When the person is part of something (consulted and involved), then he becomes responsible.

> Combs (1962) stated, people discover their self concepts from the kinds of experiences they have had with life, not from telling, but from experience, ...this is the key to what must be done to produce more adequate people. (p.84)

In 1962 Rogers emphasized the value to the person when he said that one of the individual's deepest needs is for affiliation and communication with others.

Children and adults find it necessary to work closely, to cooperate, with peers to accomplish tasks which require more than one worker for completion. Essa (1978) reminded us that one of the most vital tasks to be accomplished during the pre-school years involves the

young child's ability to get along with peers, i.e., join in cooperative play and learn to give and take in friendship and group membership. Essa also concluded that some children fail to acquire normal social skills during their early years, and pre-school teachers must make a concerted effort to help them develop in this deficit area.

Schmuck and Schmuck (1979) also felt that we must teach cooperation, they stated:

> As a result of societal changes during the past several decades and the contemporary tensions within cities, schools have an increased responsibility for helping students learn behavioral skills that will equip them to fill responsible and useful roles in society and contribute maximally to the productivity of groups. (p.7)

Researchers and journal authors agree that behaviors are an important part of the classroom and that they are taught either through neglect or by plan. Sueoka (1974) found that specific operant training in school relevant behaviors does facilitate classroom adjustment if the training is coordinated with the regular classroom teacher's activities. Several elements

combine to influence the teaching-learning process. Schmuck and Schmuck (1979) included the nature of the interpersonal relations in the classroom as one of the five most important along with the student's feelings about themselves and their academic abilities. If cooperation skills have been taught, it is conjectured that the students will have acquired the necessary skills to interact positively with their peers. Holt (1971) believed that peer attention would become the reinforcer for aggressive behavior at this point.

Evidence of Concern by Others Towards Cooperation

Convention planners appear to be concerned with the lack of this social skill as evidenced in recent conference-workshop-university programs and course offerings.

For example, workshop offerings available during the 1981-1982 school year included "Let's Help Kids Cooperate" offered two times by Community Coordinated Child Care (4-C's) of Milwaukee County, Milwaukee, WI. A two-hour session, it was available to day-care, pre-

school, headstart and kindergarten teachers and directors in Southeastern Wisconsin at Racine and Milwaukee.

The Midwest Association for the Education of Young Children during the May 1982 conference in Indianapolis offered sessions on 1) Facilitating prosocial behavior in preschool children: the teachers role, 2) Toward cooperation and helpfulness:teach peace at an early age and 3) How can a teacher help shy and aggressive preschoolers get along in a group?

Also, the University of Wisconsin-Milwaukee is offering a course on school discipline policies and practices with Joe Larkin, former director, Student Concerns Project, who is known for espousing cooperation as opposed to aggression.

Other researchers have felt a need to teach cooperative actions. Keach and others (1970) planned a Unit of Interdependence for Four Year Olds. Goals of the unit, which match goals of this researcher's unit include: 1) understanding and practicing interdependence, 2) helping children learn the techniques of group living, 3) understanding the importance of cooperation on the

part of all, 4) realizing each individual's dependence on other members of the community or class.

Shure and Spicack (1975), in presenting the results of the second year of A Preventive Mental Health Program for Young (Kindergarten) "Inner City" Children listed positive outcomes which the cooperation tasks should also provide for its participants including: 1) all students were better able to share and take turns, 2) the timid and shy students became more socially outgoing and better liked by their peers, 3) those who improved in trained thinking skills (trained cooperation skills) improved in classroom behavioral adjustment, 4) cognitive problem solving skills were improved as interpersonal skills improved, regardless of IQ. Shure and Spivack found that one year of training was as beneficial as two, which gives tremendous hope for the cooperative tasks gains to also be long-lasting.

Conclusions

Children need more than chance opportunities to learn effective cooperation skills, more than praising

good behavior and punishing bad behavior. Finkelstein (1982) found the essential element to be a formal and systematic approach. Essa (1978) found the major problem of teaching cooperative social tasks to be lack of systematic follow-up procedures which encourage maintenance of the desired behavior.

Biehler (1962), in summarizing Bruner's approach to teaching, said, "...to instruct someone in a discipline...is to teach him to participate in the process that makes possible the establishment of knowledge." (p.4) Sharing or cooperative behavior can be taught. Physical sharing is durable only when students are taught to share verbally. In 1934 Currier (cited in Barton and Ascione, 1979) said it someday would be possible to establish preschool environments which would tend to induce sharing behavior. Barton and Osborne's research (1978) supported the idea that sharing must be verbalized; it is more than just providing a conducive environment. Barton and Ascione (1979) reported further that research by Cooke and Apelloni and also by Rogers-Warren and Baer, who trained kindergarten children for physical and verbal sharing, found verbalizing essential to maintain growth.

Shure (1979), writing in the Journal of Research and Development in Education, reported that sequenced games and dialogs teach young children new ways of thinking about and coping with interpersonal difficulties. Shure and Spivack (1979) said:

> One way to redirect certain maladaptive behaviors is to restructure children's thinking patterns in ways which would allow them to function effectively in their daily encounters with peers and adults...children who consistently find themselves involved in behavioral difficulties may be unable to conceive of alternative and possibly effective means to solve inter-personal problems. Cited in Shure (1979). (p.4)

Shure's research points out the need and desirability of the cooperative tasks research project.

Essa (1978) gave one final reason for doing the cooperative tasks project. "...appropriate patterns of behavior must be fostered and reinforced early in any child's life." (p.570) The earliest that most schools can intervene in a child's life is during their kindergarten year.

The researcher hopes to find that children will learn to give and take in friendship and join in cooperative play as Essa found necessary, i.e., to be less aggressive. The researcher will assist the children to verbalize as they are physically cooperating; Barton and Ascione found this essential to maintain cooperation growth. Similar to Shure's concept, this researcher has sequenced the difficulty of the tasks and hopes that this will aid growth in cooperative behavior. Finally, this researcher hopes the project will develop appropriate behavior patterns to replace the aggressive behaviors the children have now which are interfering with their academic growth.

CHAPTER THREE

Review of the Project

Participants

The participants were 17 kindergarten children attending this researcher's morning kindergarten class. Originally the children were randomly assigned to the three kindergarten classes. Effort was made to balance the number of boys and girls as evenly as possible between the three sessions. Following the title one screening it was necessary to reassign several children. Each morning session then contained about half title one children (nine) functioning on a low readiness level. The other half were average readiness level children (eight). The highest scoring children (on the title one screening) were assigned to the afternoon session, which was not part of this project.

The 17 participants ranged in age from five years two months (5-2) to six years six months (6-6). The group consisted of eleven girls and six boys. Nine participants

attended school all day through the title one extended-day kindergarten program. Two were repeating kindergarten. Two spoke only spanish upon entry but were bi-lingual in late December. Twelve had attended one year or more in a headstart or pre-school program before entering kindergarten.

The School

The research project was done at Henry L. Palmer school which is a central city school in Milwaukee, WI. The school is 93% black, 6% Puerto Rican and 1% white. A mobility factor of 65% has a negative effect on the test scores which place Palmer 105th of the 109 elementary schools in the city. Approximately 40% of the student population is bussed from a housing project one mile from school. Busses are provided because of the hazardous area through which the students would have to walk. The area includes many bars, boarded-up buildings and razed, open areas. 60% of the students live in one and two family residences. The participants appear to be typical of this school's population. Four are supported by working parents, thirteen by funds from Aid to Families With Dependent Children (AFDC.) Three children live with both parents, fourteen with one parent. Eleven

children were born when mother was 15 years old or younger, six when mother was 16-25 years old. Current research shows that this last fact will have a negative effect on children's readiness and social skills.

Duration of the Study

The study was done during the 1981-1982 school year. It extended over a period of seven months. Pre-treatment observations were done from November to January. Treatment was in February and March. Post treatment observations were done in late March and May.

Instructional Methods and Procedures

The researcher designed the cooperation tasks to require two or three children for completion. The toys and papers used were available as standard equipment in the kindergarten classroom. The only expense was for stickers by Hallmark, Dennison and Eureka to use in finding partners. Purchased in the stationery department of a variety store, each sticker was mounted on a 1-½" x 3" piece of card. The stickers were mounted in pairs or triples to accommodate every child finding a partner(s) per the task plan for the day.

Cooperation in this research project meant to take turns repeatedly until the task was completed. This meant that each child would cooperatively alternate turns with a partner(s) until they had each used all of the provided materials, according to the task design.

The directions for each task were given verbally and visually through a demonstration. The children were matched into task groups of two or three, directions were repeated verbally by the class as a whole. Following the distribution of materials each group would complete its task packet. All groups were seated on the floor in the "group time" area of the room to enable the researcher to easily monitor the group as a whole. Samples of the lesson plans can be found in the appendix of this paper.

The students worked on each task for five to thirty minutes, including the direction-demonstration time. Tasks were presented daily for two weeks followed by one week off; this was followed by three weeks of daily tasks and then one and one-half weeks off was followed by one week of daily tasks. This initial task work was followed by maintenance tasks once or twice a week for the remainder of the school year (nine weeks).

Research Procedures

Observation Instrument

The researcher designed an observation instrument to be used in counting passive and active aggressive actions. Each of the two observers was to record each aggressive action that they saw by putting a hash mark in the appropriate aggressive action column behind the student's name. The same instrument was used for both pre and post treatment observations. A copy of the observation instrument can be found in the appendix of this report. The aggressive actions monitored were chosen because the researcher and a group of professionals and administrators who work in the building, or were familiar with the children in this school, identified these nine actions as being typical and undesireable.

The observers were to station themselves in opposite corners of the room, sit unobtrusively, observe the children and mark the aggressive actions which they actually saw performed. The observation was done for 45 minutes during the free play time which the teasher was overseeing. The observers were not to intervene in

the children's play unless personal injury would result if they did not. Further, the observers were not to engage in conversation with the children or help them in any way other than to refer them to the teacher.

Pre-treatment observations were made two times in November, one time in December, and two times in January for a total of five times. Post-treatment observations were done three times, one time in late March and two times in May.

Both observers had several years' experience with young children. Observer one had been a volunteer in the researcher's classroom for eight years on a one day a week basis. Observer two was a former nursery school teacher doing student teaching in the researcher's classroom. When a new student teacher was not sent, the researcher fulfilled the role of observer number three.

Observational Log

The second evaluation instrument was an observational log kept by the researcher. Entries were made at the end of each treatment day in three categories:

1) Did the children accept the task; i.e., did they like it, enjoy it or seem to want to repeat it?

2) Were the children able to cooperate to complete the task?

3) Was the tone of the room aggressive or cooperative following the task completion?

Evaluation of Tasks

The third evaluation was done by two kindergarten teachers who work in similar schools in similar neighborhoods. They were asked to evaluate the tasks on three points:

1) Do you think your kindergarten children would enjoy the task?

2) Do you think the task would be helpful in teaching your kindergarten children cooperation skills?

3) Do you think your kindergarten children could complete the task?

Evaluation by Current Teachers

A fourth evaluation was an interview with the four first grade teachers and two unit leaders who now have members of the research class in their rooms. They were asked:

1) Can you see any evidence that these children were part of the cooperation project in kindergarten; should it be continued this year?

2) Do you see any of these children as being more helpful and considerate than most of their classmates?

3) Do you see any of these children as being better at taking turns than most of their classmates?

Results

The Observation Instrument

Results of the aggressive acts observations of the 17 students for the eight observation periods is

found on table 1. This table includes five pre-treatment observations and three post-treatment observations.

Seventeen children were part of the project. A daily attendance total (11-16), a daily total of aggressive acts (25-160), and a daily total of aggressive children (8-15), can be found on table 2. The number of aggressive children (15) and the number of aggressive acts (160) peaked just before treatment began. Following treatment the number of aggressive children was constant at 8 as attendance increased from 12 to 14 and the aggressive acts decreased from 77 to 25 (see table 2).

Some students committed larger and larger numbers of aggressive acts, as high as 33, just before treatment, as found on table 3.

Six of sixteen children did no aggressive acts during the first observation; this dropped to 1 of 13 and 1 of 16 acting non-aggressively on the fourth and fifth observations. Following treatment the number of non-aggressive children increased to 4 of 12, 5 of 13 and 6 of 14 (see table 5).

Table 1

Summary of aggressive acts by students
for 8 observation periods.

Student	11/11		11/25		12/2		1/20		1/27		3/31		5/5		5/12	
	Observer 1	Observer 2	Observer 1	Observer 2	Observer 1	Observer 2	Observer 1	Observer 3	Observer 1	Observer 3	Observer 1	Observer 3	Observer 1	Observer 3	Observer 1	Observer 3
1	8	3	--	--	5	4	--	--		1	9	8	--	--	1	6
2	0	0	0	0	0	0	0	0		4	--	--	--	--	--	--
3	1	2	--	--	3	7	2	13		19	3	11	0	0	0	2
4	0	0	0	1	1	0	2	2		6	0	0	0	0	0	0
5	0	0	1	0	1	3	--	--		7	0	4	1	0	1	1
6	1	1	1	1	2	1	1	6		12	5	3	2	4	1	0
7	1	1	--	--	0	0	1	1		0	--	--	--	--	0	0
8	1	0	--	--	0	3	9	10		5	0	2	0	0	6	0
9	22	8	--	--	1	4	--	--		20	15	10	1	3	--	--
10	0	0	0	0	0	4	0	1		4	0	0	0	2	0	0
11	0	0	0	0	0	1	2	5		11	0	0	6	0	0	0
12	3	1	8	1	5	5	--	--	--	--	--	--	0	1	5	0
13	--	--	9	3	--	--	0	11		10	--	--	0	0	0	0
14	0	0	--	--	--	--	2	6		2	0	0	0	0	0	1
15	8	2	6	0	0	3	7	25		29	0	2	9	11	1	0
16	0	4	3	6	1	5	0	6		9	0	5	1	7	0	0
17	2	1	3	2	1	3	2	12		21	--	--	--	--	--	--

Table 2

Summary of aggressive acts by entire class
for 8 observation periods.

	11/11	11/25	12/2	1/20	1/27	3/31	5/5	5/12
Observer 1	48	31	20	28		32	20	15
Observer 2	23	14	43					
Observer 3				98	160	45	28	10
Daily total	71	45	63	126	160	77	48	25
No. of aggressive children	10	8	13	12	15	8	8	8
Total children in attendance	16	11	15	13	16	12	13	14

Table 3

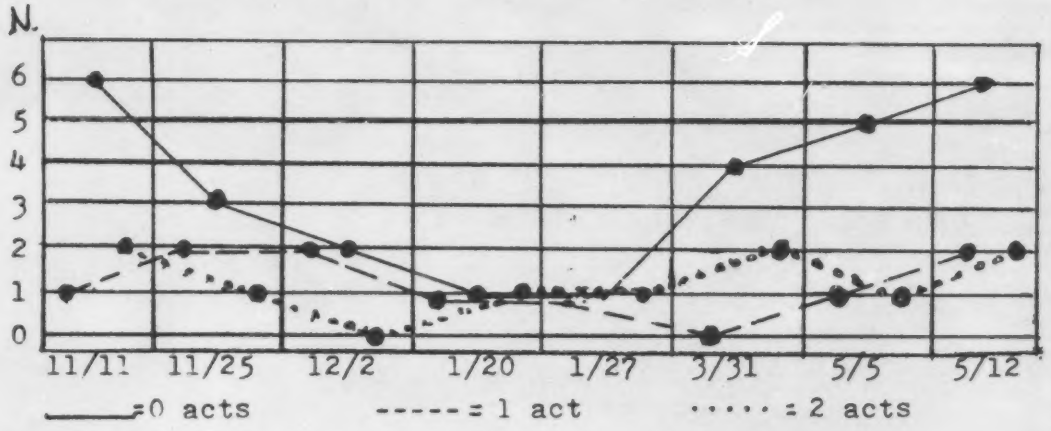
Ranges of aggressive acts for
8 observation periods.

acts:	11/11	11/25	12/2	1/20	1/27	3/31	5/5	5/12
	N= 16	11	15	13	16	12	13	14
0-1	7	5	4	2	2	4	7	9
2-4	6	1	6	2	3	3	2	2
5-7	0	2	2	3	3	1	2	3
8-10	1	2	3	1	2	1	1	0
11-15	1	1	0	3	2	1	0	0
16-20	0	0	0	1	2	1	1	0
21-25	0	0	0	0	1	1	0	0
26-30	1	0	0	0	1	0	0	0
31-35	0	0	0	1	0	0	0	0

N= Number of students in attendance that day.

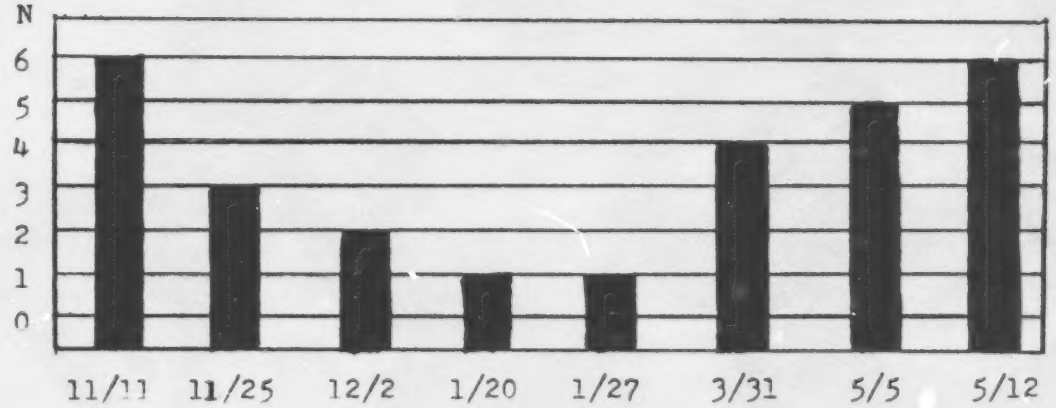
Table 4

Summary of 0, 1 and 2 aggressive acts by students for 8 observation periods.



N= number of children doing aggressive acts.

Summary of students doing no aggressive acts for 8 observation periods.



N= number of students doing no aggressive acts.

Table 4 summarizes zero, one and two aggressive acts by students for the eight observation periods. There was a great change in the zero acts category from six down to one and up to six children. The number of children committing one or two aggressive acts was quite level, ranging between zero and two.

The biggest improvement seems to be in the number of aggressive acts per child. By the last observation there were no children committing more than seven aggressive acts; this had peaked at 33 (see table 3). The last observation notes a decrease in the number of total aggressive acts, a decrease in the number of children being aggressive and a decrease in the maximum number of aggressive acts per one child as well as an increase in the number of children doing no aggressive actions.

The Observational Log

As was stated earlier, the log was to record three (3) categories; i.e., the children's acceptance of the task, their ability to cooperate to completion and the tone of the room. The students' ability to cooperate

to completion was the most significant entry. Day numbers listed will be the number of the treatment day.

Day one, two and three were difficult for the children; they were unable to cooperate to completion due to their inability to rotate turns. On days four and five the children tried but could not alternate turns.

Day six saw a big breakthrough as they began saying "your turn," and "my turn next." Day seven some new friendships were apparent among yesterday's task partners. On the ninth day the children were making valentines for their families, when several children began to secretly make valentines for classmates.

By day 13, the children were cooperative even though the task was too difficult to complete. By day 14, they were visiting softly with their partner while they waited for the others to complete their tasks.

On day 16 they arrived at the classroom asking, "May we have a friend today?" On day 19 the class did two normal days assignments in reading and math.

Alternating was noted as easily done on the 20th day. On day 21, some children asked to repeat day 20's task with day 20's partner. As the other children heard this comment they all said "Yes, please." On day 23 the teacher was able to do one on one testing for the entire morning without having to intervene at any time due to aggressive acts, friends played and worked productively and quietly (this is the first time this has happened for this researcher).

By day 25 it was noted that perhaps the children were too helpful. By day 31 the notation again says, "Most cooperative, a very productive day."

The children gained the skill of alternating to complete a task with one or two partners. They also appeared to know about friends, having them, wanting them, and enjoying them.

Other Teacher Evaluations

Both teachers answered each of the questions with a "yes." They did not evaluate each task as requested but rather read them all and gave an overview response.

One felt some of the tasks might be too easy. The second felt some of the tasks might be too difficult. Both commented on how great it was to have all of the tasks using regular classroom materials. One commented negatively as to the amount of teacher time used in bagging the materials before each task presentation.

Interview With First Grade Teachers

Ten of the seventeen in the research group are in first grade classes at Palmer, seven months after treatment was completed. When these teachers' ratings of poor, good, very good and excellent, as noting the lack of aggressive behavior, were compared with the final observation following treatment, these comparisons can be made:

1) One child is performing two levels higher now.

2) Five children are performing one level higher.

3) Two are performing on the same level.

4) Two are performing one level lower.

The six interviewees commented, "Is that what happened?" in referring to the seemingly cooperative behavior of these students. All six suggested doing the cooperation tasks again this year to check further on their effectiveness. They then asked for more information on how to teach cooperation.

Conclusions

Recommendations

This researcher would suggest doing the cooperation tasks in October. By presenting the tasks earlier in the school year it would probably prevent the profusion of aggressive acts recorded during the fourth and fifth observation periods as noted on table 2. An earlier presentation would likely preserve the lower initial aggression level and allow for lowering the number of aggressive acts as is desired.

Continue with the rewards would be another suggestion as the benefits were multiple and probably had a positive effect on the outcome. Some of the rewards were:

1) Honest verbal praise.

2) Projects to take home.

3) Colorful stickers to take home.

4) A partner--friend to work with.

5) A partner--friend to play with.

6) The feeling of security coming from having someone to be with for the day.

Because taking something home is extremely important and pleasing to these children, the researcher would probably increase the number of tasks which produce a product which can be taken home. When the materials must be left at school, she would consider the use of stickers for finding partners. Because of the importance of the pairings used for some of the tasks, she would hand out the sticker-cards selectively rather than having the children draw their own card for every task.

Relation to Other Research

This researcher feels that the cooperation tasks project did match Keach and others' (1970) goals in the following ways:

1) The children were understanding and practicing interdependence.

2) The children did learn some techniques for peaceable group living.

3) They were beginning to feel the importance of cooperation.

4) They were beginning to realize the interdependence on other members of the class.

The approach was formal and systematic with follow-up procedures as Finkelstein (1982) and Essa (1978) have labeled as essential components for teaching desired behaviors; i.e., cooperation.

Based on September test scores, this class was projected to finish the first kindergarten reading

readiness book and the kindergarten math book by the end of the school year in the second week of June. The entire class completed the second reading readiness book and several post kindergarten math concepts by mid-May. This degree of progress may be due to the cooperation skills they had developed. Also, the progress may have been due to the friendships they had developed during the project. McKinney (1974), however, has stated that "adequate development of cooperative skills is the necessary antecedent to cognitive learning, not friendship."

Future Research

This researcher feels that a viable project would be one which finds out whether the security of having a friend is as beneficial, less beneficial, or more beneficial as the teaching of the cooperation tasks. Would the simple act of assigning friends each day serve to minimize aggression in a kindergarten class room?

She would also recommend a cooperation project be completed in October. This creates many questions for a new focus in this research including:

1) Will the children be too young in October to benefit from the tasks?

2) Will the aggressive acts increase significantly before decreasing as they did in this project?

3) Will the number of aggressive acts be extinguished in the classroom setting by the end of the school year if cooperation is taught earlier?

4) Will the children's academic achievement be even greater by developing cooperation skills earlier?

Limitations

Because of the observers' positions, it is possible that some students received a hash mark from both observers for a single action. It is also possible that some aggressive acts were not recorded because one observer thought the other was giving a hash mark. After the third observation, the researcher discovered that both observer one and two were not recording all of the aggressive acts they saw because they felt that many were typical of five year olds. If research is

done again, observers would have to be told more emphatically that every aggressive act must be recorded.

Another limitation was the researcher's need to fulfill the observer number three position when a student teacher was not assigned to the class, as had been planned. It did appear to have very little effect on the children's behaviors and it had one positive effect; i.e., the researcher hash marked all aggressive behaviors.

Upon task completion, the pairs of children (on several days) were directed to choose a mutually agreeable play activity. The probability of a positive skew in the findings causes the researcher to recommend further investigation on friendship.

Summary

The researcher feels that the apparent benefits to the class far outweigh the extra efforts put into the bagging of materials and the out of pocket expense of the stickers. She plans to repeat the cooperation tasks in October and November of the next school year with maintenance activities one or two times per week for the

remainder of the year. It would appear, based on this research, that at least some schools should teach the cooperation tasks to the kindergarten children.

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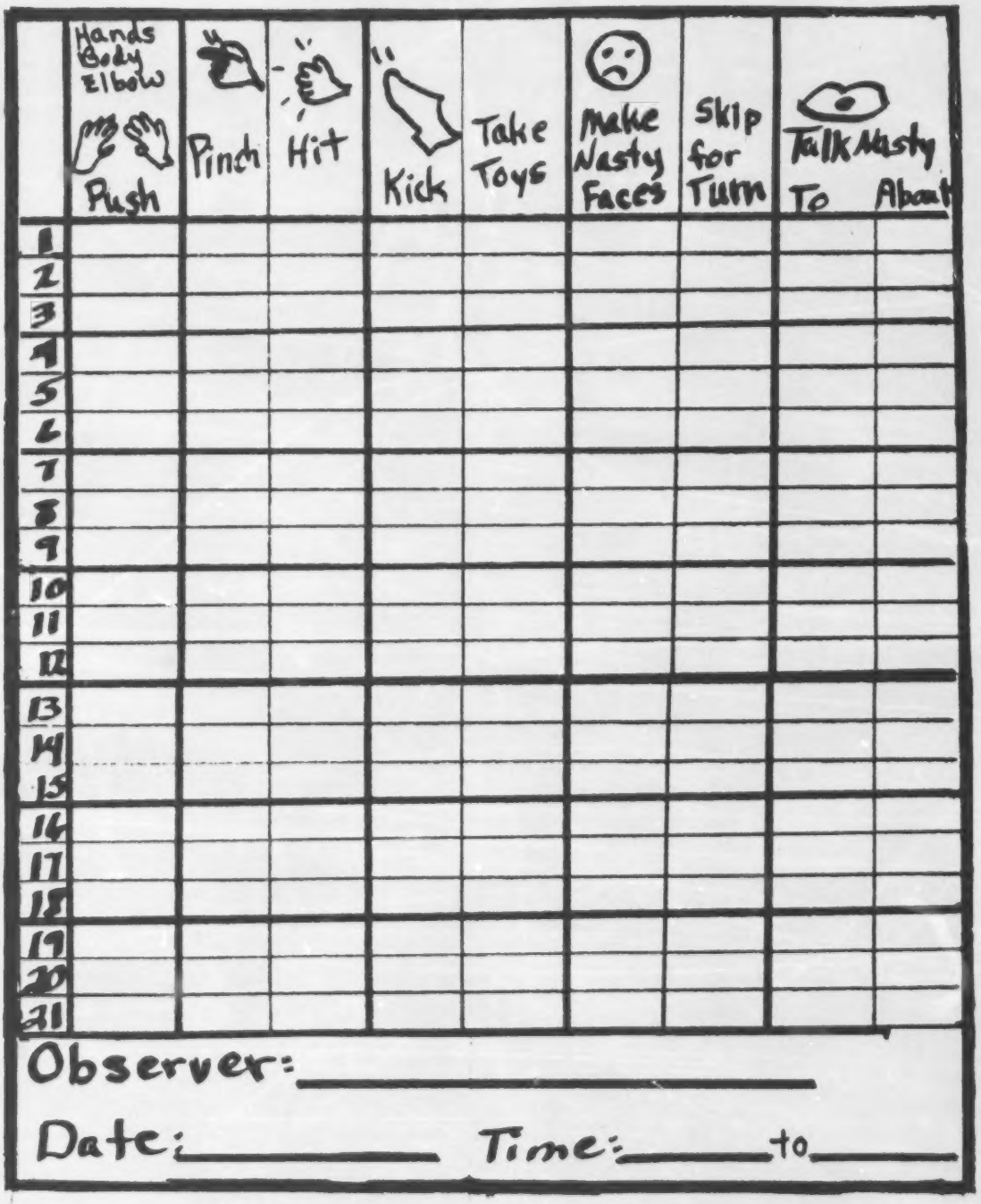
Appendix A

Observation Instrument



Appendix B

Lesson Plans

Snowflake Pattern #1

Materials: Two baggies, each containing three large 1½" brightly colored snowflake stickers, each a different color and--or shape and bagged alternately for their matching pattern card. One 4"x12" pattern card to be completed and one 4"x6" pattern card per group of two with a six sticker pattern completed.

Directions: Put the dot on your left, the completed pattern card above the empty card. Beginning with the dot, take turns licking and sticking the snowflake stickers until the empty card looks just like the pattern card.

Grouping: Beginning on the right of the researcher, first two students are partners, the next two etc. If there is one child left over, the researcher can act as a partner.

Two Way Match-up Tiles #1

Materials: Two baggies of eight tiles each, two of each object, and one vertical stimulus strip from teaching resources corporation.

Directions: Alternate turns to put tiles in the correct row. Put the stimulus strip of four object pictures on the left. Place tiles from left to right with all of one object in the same row.

Grouping: Starting on your left, the first two students are partners, the next two. etc.

Two Way Match-up Tiles #2

Materials: Two baggies of eight tiles each and a horizontal stimulus strip from teaching resources corporation.

Directions: Alternate turns to put tiles in the correct row. Put the stimulus strip of four size pictures on the top. Working from the stimulus strip down, place all of the shortest object pictures in the same row; long, longer and longest in their appropriate rows.

Grouping: Pair a quiet child with a loud child.

Two Way Match-up Tiles #3

Materials: 16 coordinated tiles divided into two bags, one vertical stimulus strip and the coordinated horizontal stimulus strip.

Directions: Alternate turns to place the small tile pictures. Both the vertical object and the horizontal size stimulus strips must be matched. This is a difficult task, allow a large block of time for completion.

Grouping: Pair the children by ability since these match-ups are in levels from easy to difficult.

Snowflake Pattern #2

Materials: Two baggies, each containing six small 3/4" stickers, each a different color and--or shape. Two blank strips of construction paper 3"x6" with a dot at one end.

Directions: Partner number one chooses a sticker, "licks and sticks" it next to the dot; partner number two copies on it's own strip. Repeat

with number two copying number one until all six stickers are used and both strips are identical in pattern.

Grouping: Start with any child in the circle and have them work with the child next to them. The next two are partners etc, all around the circle.

Parts and Wholes #1

Materials: Teaching resources corporation's parts and wholes picture cards. Using two "parts" cards for each whole card, make enough sets of three for each student to have one card.

Directions: Have the class name each card as you hold it up. Shuffle the cards. As you say each child's name they come up and draw a card. When each one has a card, everyone stands up, holding their card on their chest with the picture out, and walks around looking at everyone else's card.

Grouping: When you feel they have seen all of the cards, give the direction to find two cards that

go with yours and sit down together. Each trio of students get a turn to tell why their cards go together and then hand them to the leader.

Parts and Wholes #2

Repeat #1 using a different set of cards, this is a large set of cards that might even accomodate your class for three match-up sessions.

Living Parts and Wholes

Materials: Using teaching resources corporation's living parts and wholes picture cards have enough pairs of cards, to allow for one card per child in the group.

Directions and Grouping: Same as parts and wholes #1. (Use pairs, not trios.)

Valentine Heart String-up

Materials: One baggie of 10-2½" red hearts. One baggie of 10-1½" pink hearts. One 18" length of black yarn per pair of children.

Directions: Two children alternate pasting two of their hearts back to back on the yarn.

Tied together the strings make a pretty bulletin board border or hanging decoration for the room.

Grouping: Randomly select children sitting across the circle from each other to be partners.

Other String-ups

Yarn and sticky tape: Use 2" blue squares and 1½" white triangles.

St. Patrick's: Use green hearts and 1½"x2½" white rectangles.

Valentine Animal Match-ups

Materials: Animal valentines cut in half so that the head is on one piece and the tail is on the other piece.

Directions: Deal ½ valentine to each child. Holding their half picture out on their chest, walk around looking at everyones ½ picture.

Grouping: When you find your other half, sit down together. The partners may work side by side all day, today.

Frosting Cupcakes

Materials: Child 'A' receives powdered sugar in a baggie, a spoon, 10 cinnamon red hots and a cupcake. Child 'B' receives milk in a small paper cup, a margarine bowl, four pecans and a cupcake.

Directions: By combining materials and sharing their equipment, the frosting is made, and the cupcakes are frosted. Red hots are put on in a "one for you, one for me" pattern until all are used. Pecans are put on in a "one for you, one for me" pattern. Partners go immediately to eat together followed by choosing a play activity together.

Grouping: Try putting a sharp student with a slower one or use the valentine animal match-ups again to get the partners.

Tangram Square #1

Materials: One envelope with seven pieces of tangram either purchased or have it made by the teacher. One formboard with lines drawn on it to indicate where the pieces go. Use one color per set of pieces but several different colors for the class.

Directions: The person (A) with the pieces must give the pieces to the person (B) with the form board, who will lay them in place. 'B' may not ask for pieces, emphasis is on giving. Repeat task by reversing roles.

Grouping: You two, the next two, etc., around the circle.

Tangram square #2

Materials: 1 formboard for each child. One envelope for each child containing six of their pieces and one from a different set. If you need to use more than one set per color of paper, use a coding for each set; i.e., +, o, ¢, #, etc. You will also need enough pairs of sticker cards for one for each child.

Directions: Put your pieces on your formboard. When you finish take the piece that doesn't match and ask class mates "Do you need this piece"? You may not ask for your missing piece, someone must ask you, "Do you need this piece"?

Grouping: Draw sticker cards to match to get a partner.

Village Sets and Hoops

Materials: Playschool pegboard village sets, one grouping circle for every three children, one flannel board and one set of felt numbers 0-10.

Directions: Teacher puts number on flannel board. Number one child reads the number. Number two child puts that number of objects into the circle. Number three child checks. If correct number of items are in the circle, number three returns objects to the container. Repeat task starting sequence with number two child, then number three child. All groups of three make or do the task simultaneously.

Grouping: Randomly make groups of three. Assign each member of the group a number (1 ,2, or 3).

Bead Pattern #1

Materials: Baggie of 20 beads, same color and shape. A second baggie of 20 beads, a different color and shape. A pattern card using these two beads in an alternating pattern and one 36" bead string.

Directions: Find the knot on the pattern card, what color and shape bead is next to it? Who has that bead in their bag? Put one on. What is next? Who has it? Put one on, etc., etc. Check when they finish and do not accept a string unless the two beads alternate. Give help if needed.

Grouping: Random pairs, try to group children with a new partner.

Link patterns

Follow bead pattern #1 directions.

Interlocking cubes

Follow bead pattern #1 directions.

Bead Pattern #2

Materials: one baggie with 10 beads of the same color and shape and 10 beads of a second color and shape. A second baggie having 10 beads each of two different colors and shapes. One 36" bead string. One pattern card showing four colors and three shapes of beads. (One shape must be repeated.) Enough pairs of sticker cards for one card per child for getting partners.

Directions: Follow the pattern card. With the knot on the left, who puts on the first bead, the next, the next, the last. Now do the pattern again, and again until the beads are all on the string.

Grouping: Draw a sticker card and match to get a partner.

Bead Pattern #3

Materials: Two identical bags of ten beads, five each of two colors and shapes. Two 36" bead strings.

Directions: Child 'A' should create a pattern. Child 'B' should then duplicate A's pattern. Repeat by reversing roles.

Grouping: Random pairs, teacher selected.

Peg Board Pattern #1

Materials: Child 'A' receives 8 pegs of 1 color and a 5x5 hole peg board. Child 'B' receives 8 pegs of another color and a full size pattern card.

Directions: Alternate putting in a peg, follow the pattern card so your peg is in the same hole as the picture shows you.

Grouping: Random pairs, try to group children that may be hostile to each other.

Alphabet Worms

Materials: One 12x18" alphabet worm card made by the Milwaukee, WI Chapter 1 staff, one for each pair of children. Divide the alphabet discs needed for each pair into two baggies. Enough pairs of sticker cards for one card per child.

Directions: Take your letters out of the baggie and turn them right side up in front of you. Sing the alphabet song to help you know where to put your letter discs.

Grouping: Draw sticker cards and match to get a partner.

Clay-straw Forms*

Materials: Child 'A' has one large (walnut) and ten small (peanut) lumps of plasticine clay .

Child 'B' receives ten soda straws cut into four inch lengths.

Directions: You and your friend are to make a sculpture using little pieces of clay to hold the straws together (up in the air). It must rest on one foot, i.e., the large walnut piece.

Grouping: Pair a dexterous child with one whose small motor coordination is not as well developed.

Clay forms*

Materials: Two large walnut size lumps of clay.

Directions: Child 'A' makes a form with the clay. Child 'B' copies. Reverse roles.

Grouping: Put a sharper or imaginative child with a slower or a realistic child.

*The researcher is indebted to Dr. Donald B. Neuman, Department of Curriculum and Instruction, School of Education, University of Wisconsin-Milwaukee, for these two tasks.

Colored Cube Pattern

Materials: Two baggies, each with ½ of the colored one inch cubes needed to complete the pattern. A prepared pattern card for each pair of children.

Directions: Working together, match the pattern. Repeat by completing the pattern on the floor beside the pattern card.

Grouping: Random pairs, try matching children who have not been partners.

Appendix C

Addresses

1) Hallmark Cards, Inc.
Kansas City, MO. 64141

2) Dennison Manufacturing Company
Consumer Products Division
Framingham, MA. 01701

3) Eureka Resale Products, Inc.
Troy, PA. 16947